

FIG. 1A  
(Prior Art)

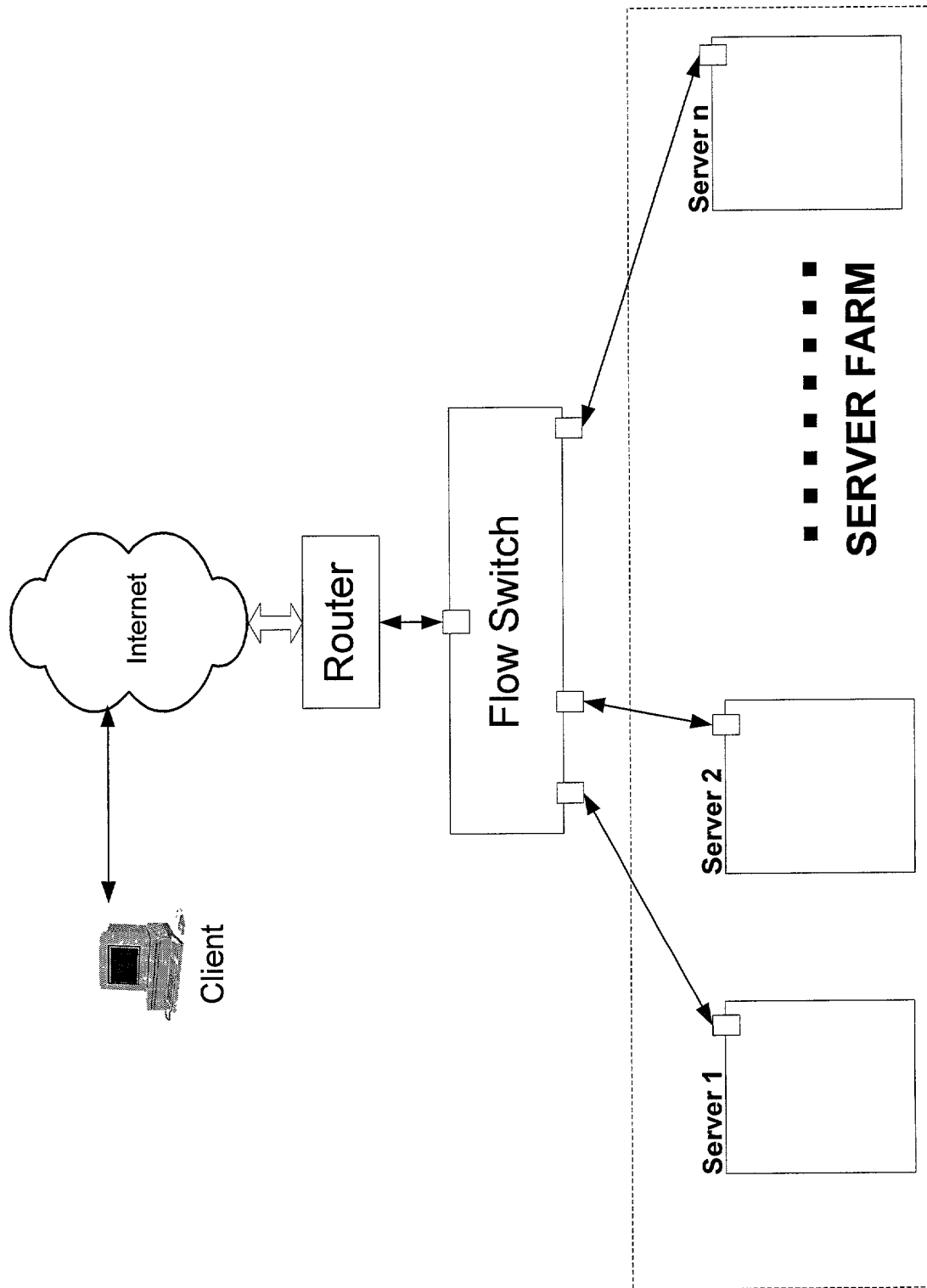


FIG. 1B  
(Prior Art)

Internet Connection to ISP



WAN Link

Router

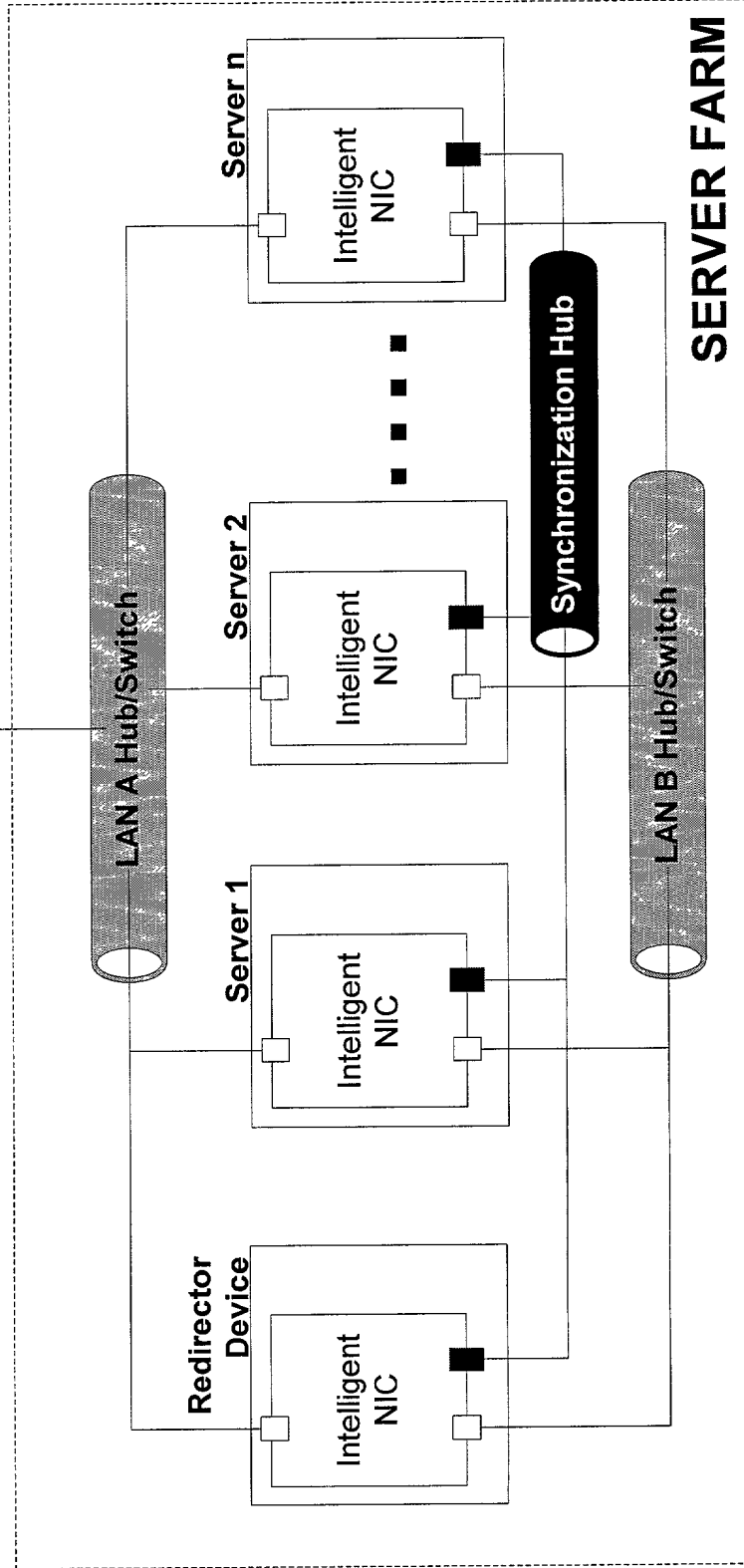
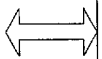


FIG. 2A

Internet Connection (e.g., ISP1)



Router A

Internet Connection (e.g., ISP2)



Router B

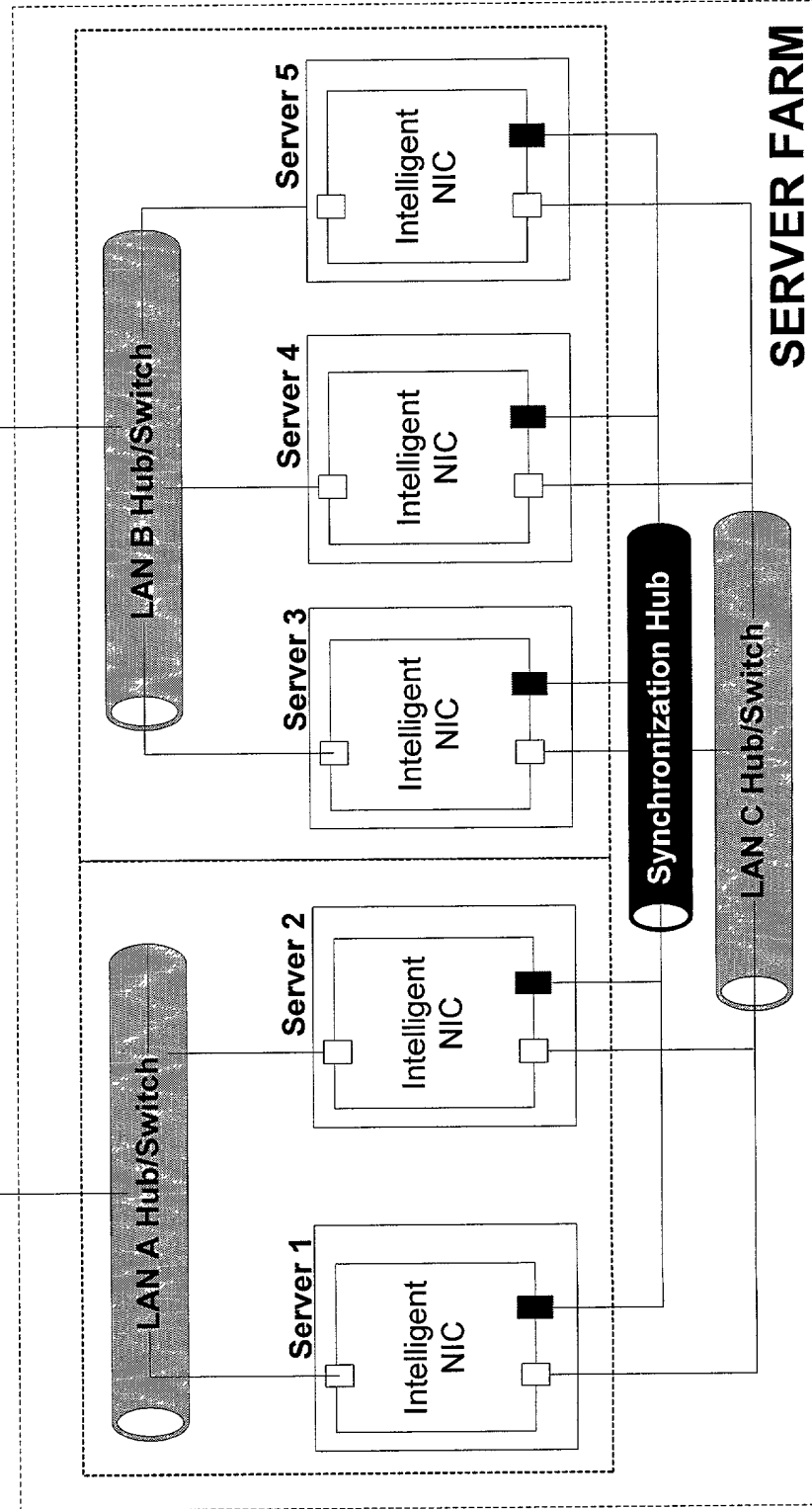


FIG. 2B

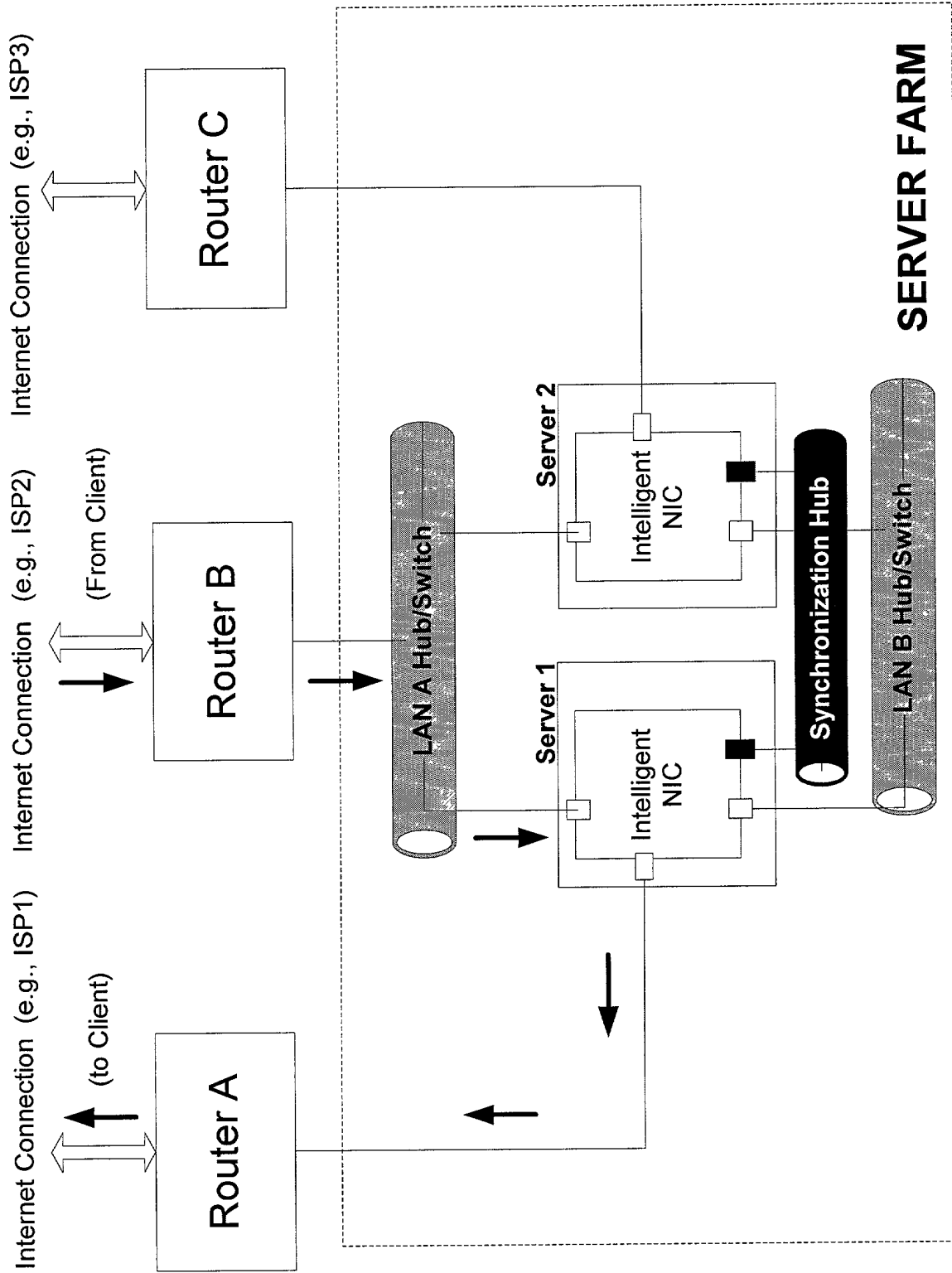


FIG. 2C

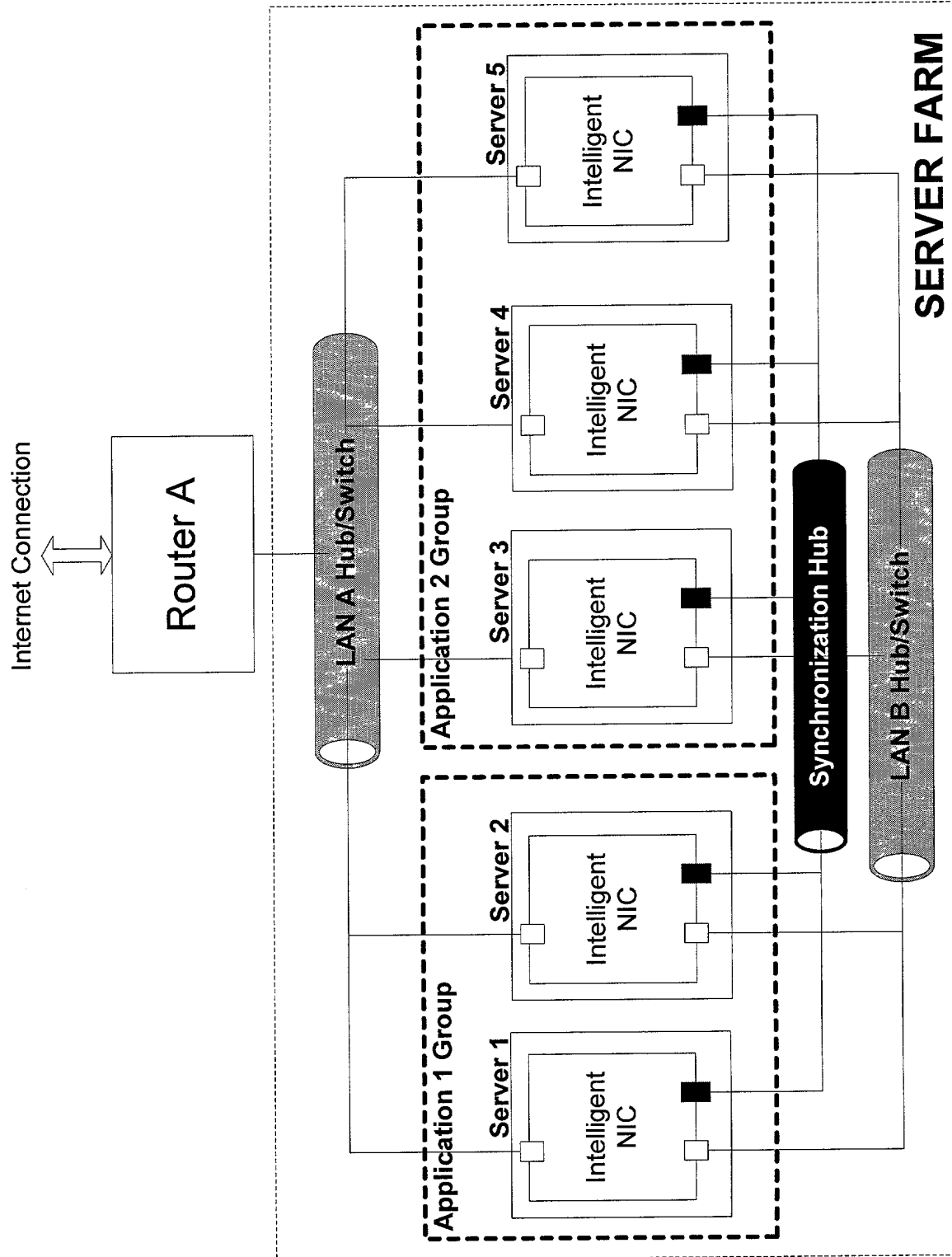


FIG. 2D

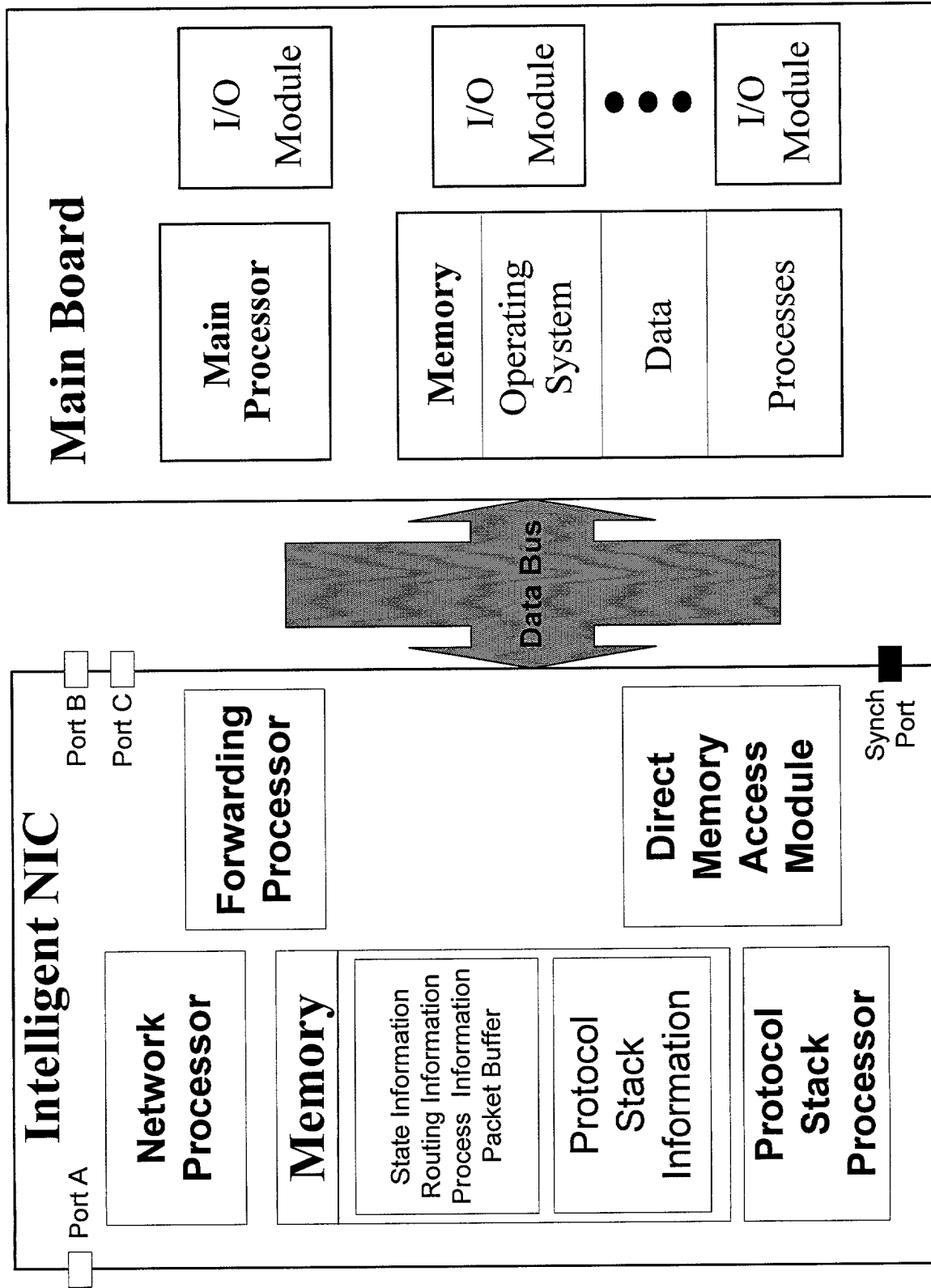


FIG. 3

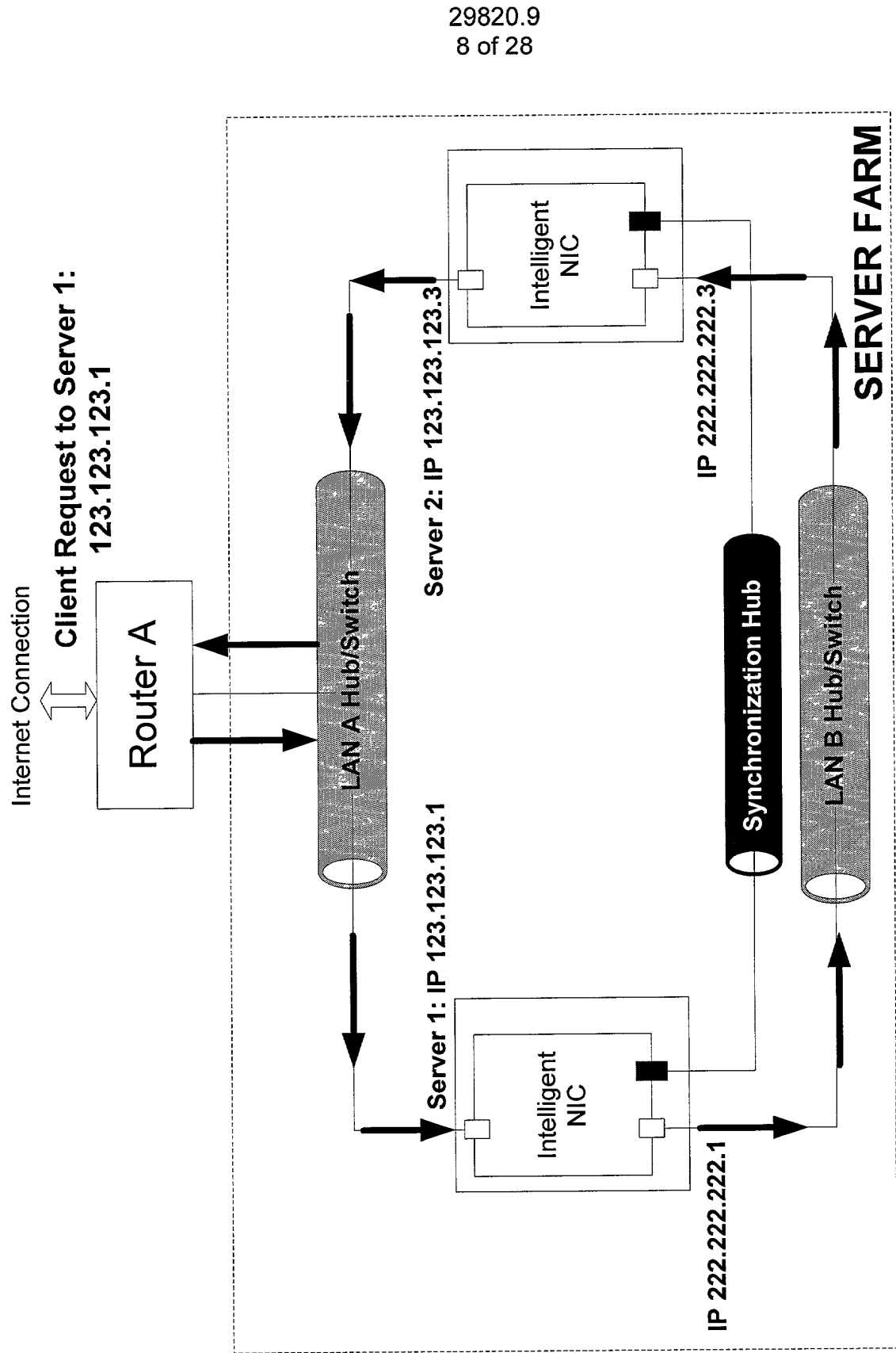


FIG. 4A



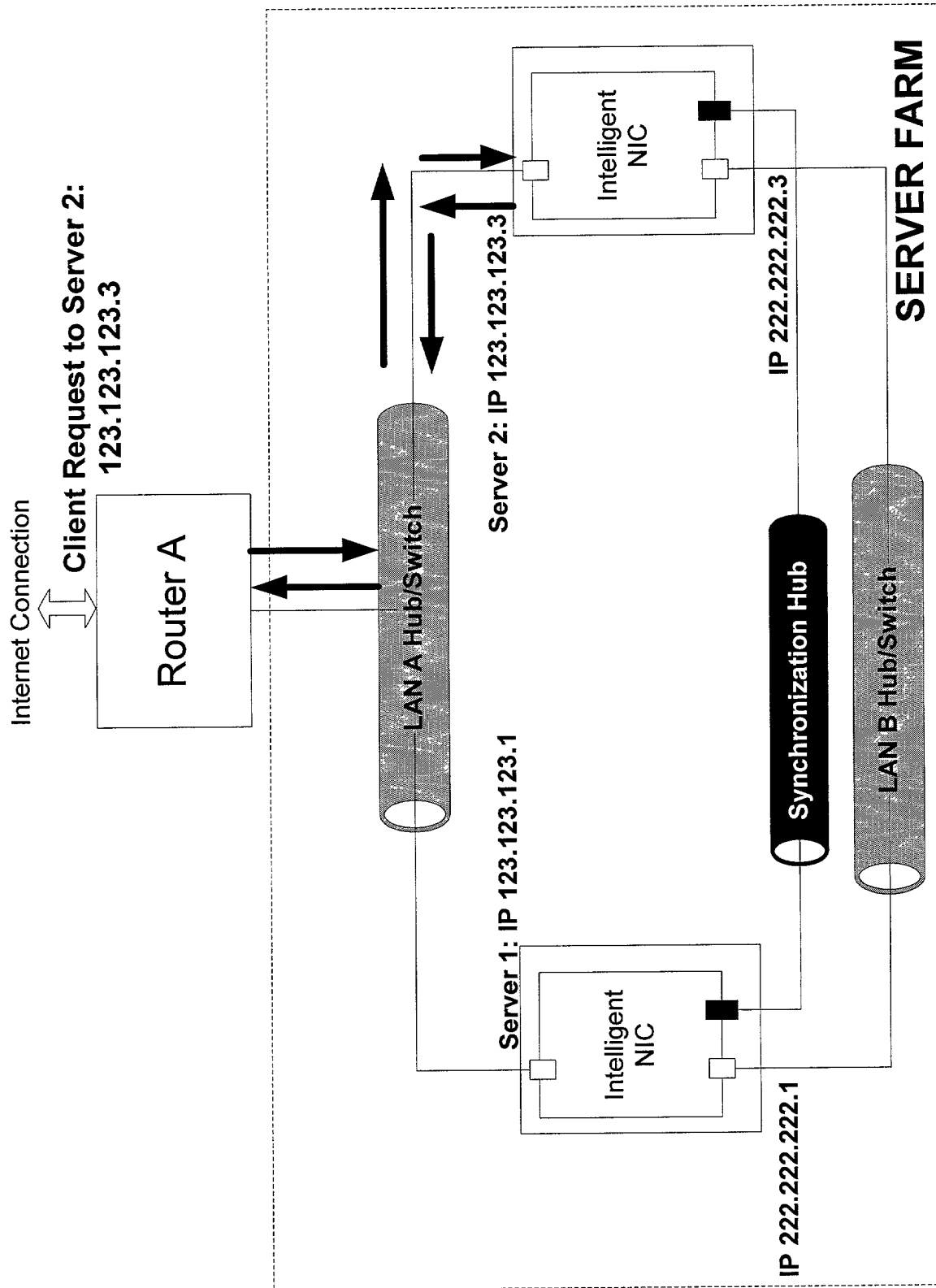


FIG. 4B

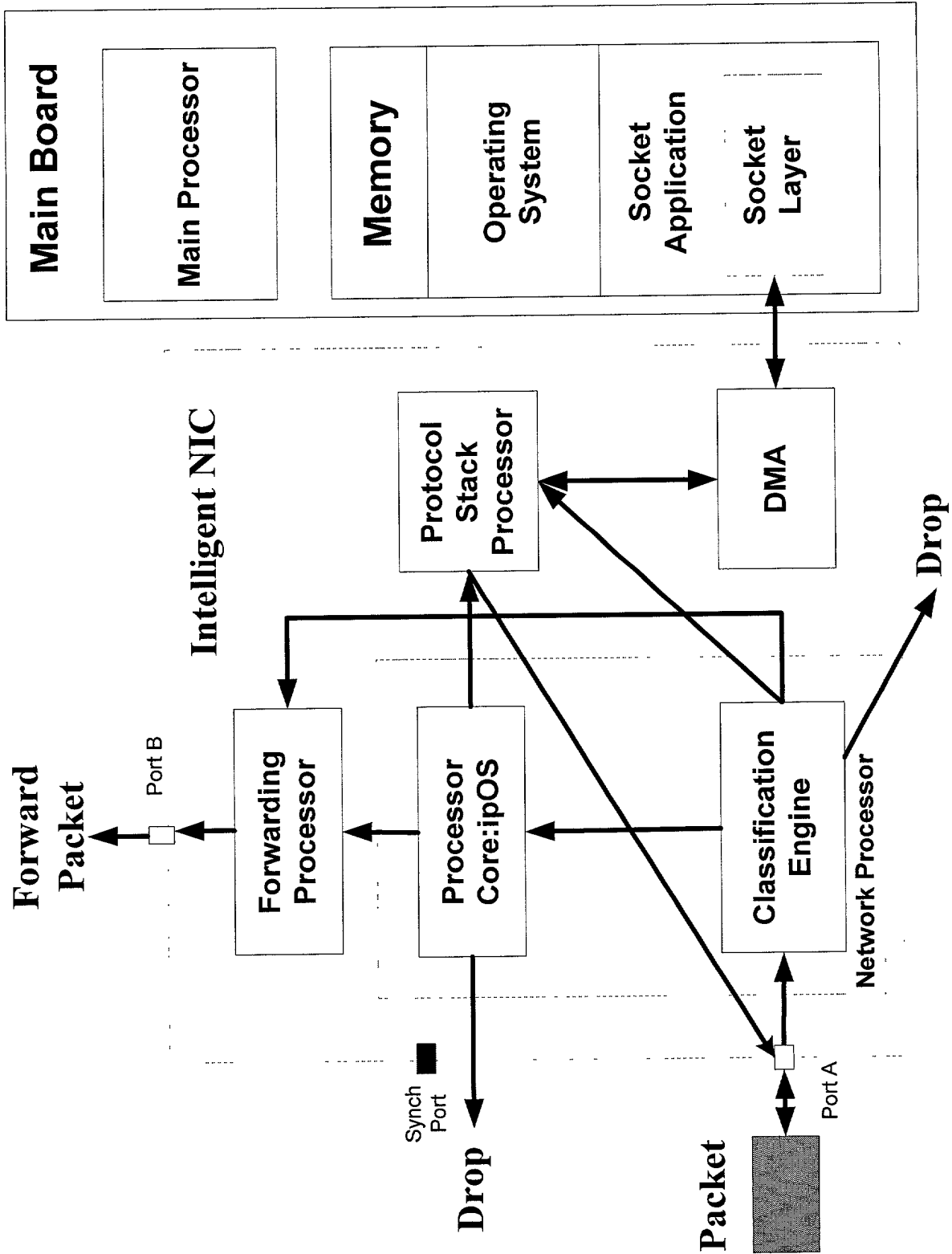


FIG. 5A

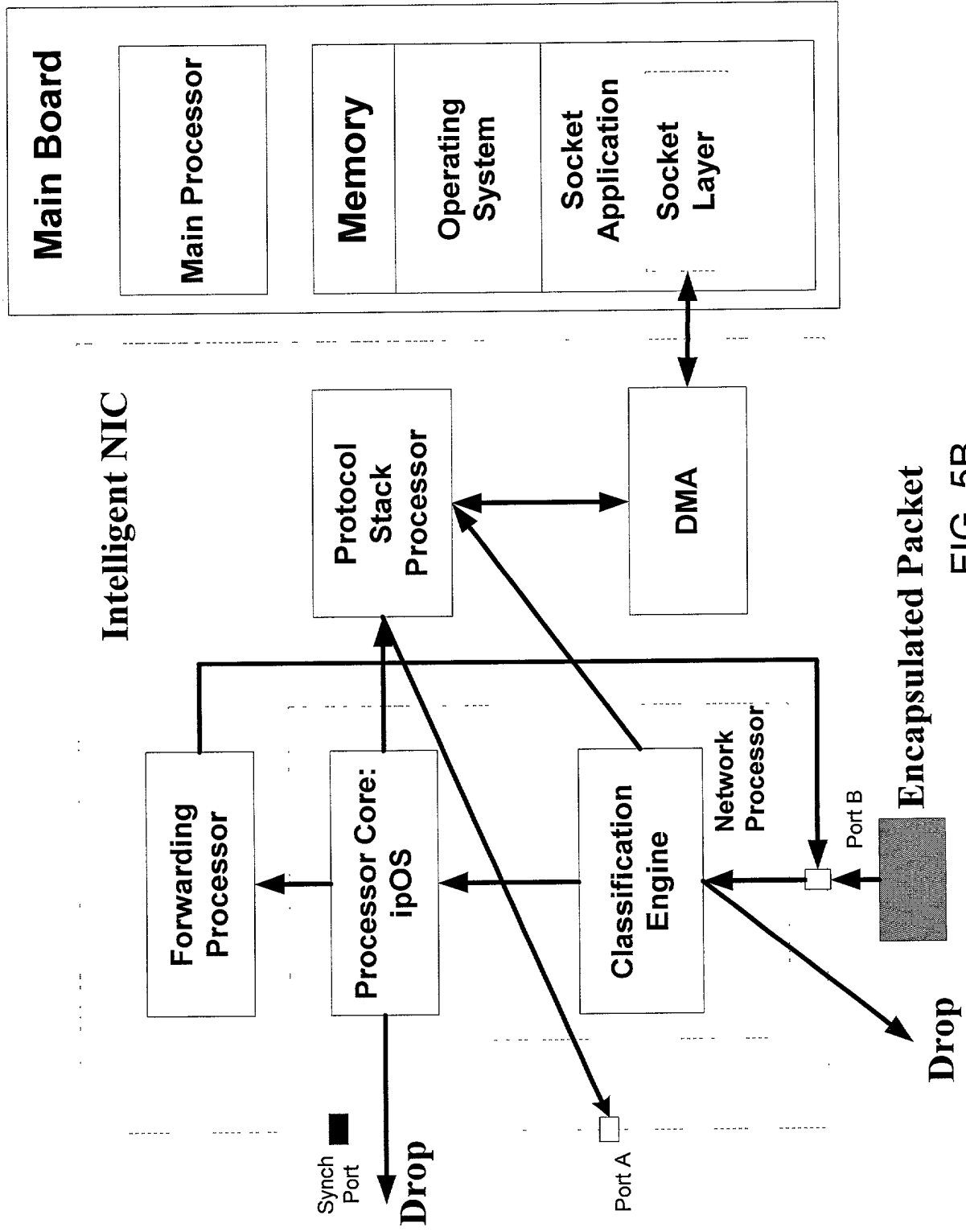


FIG. 5B

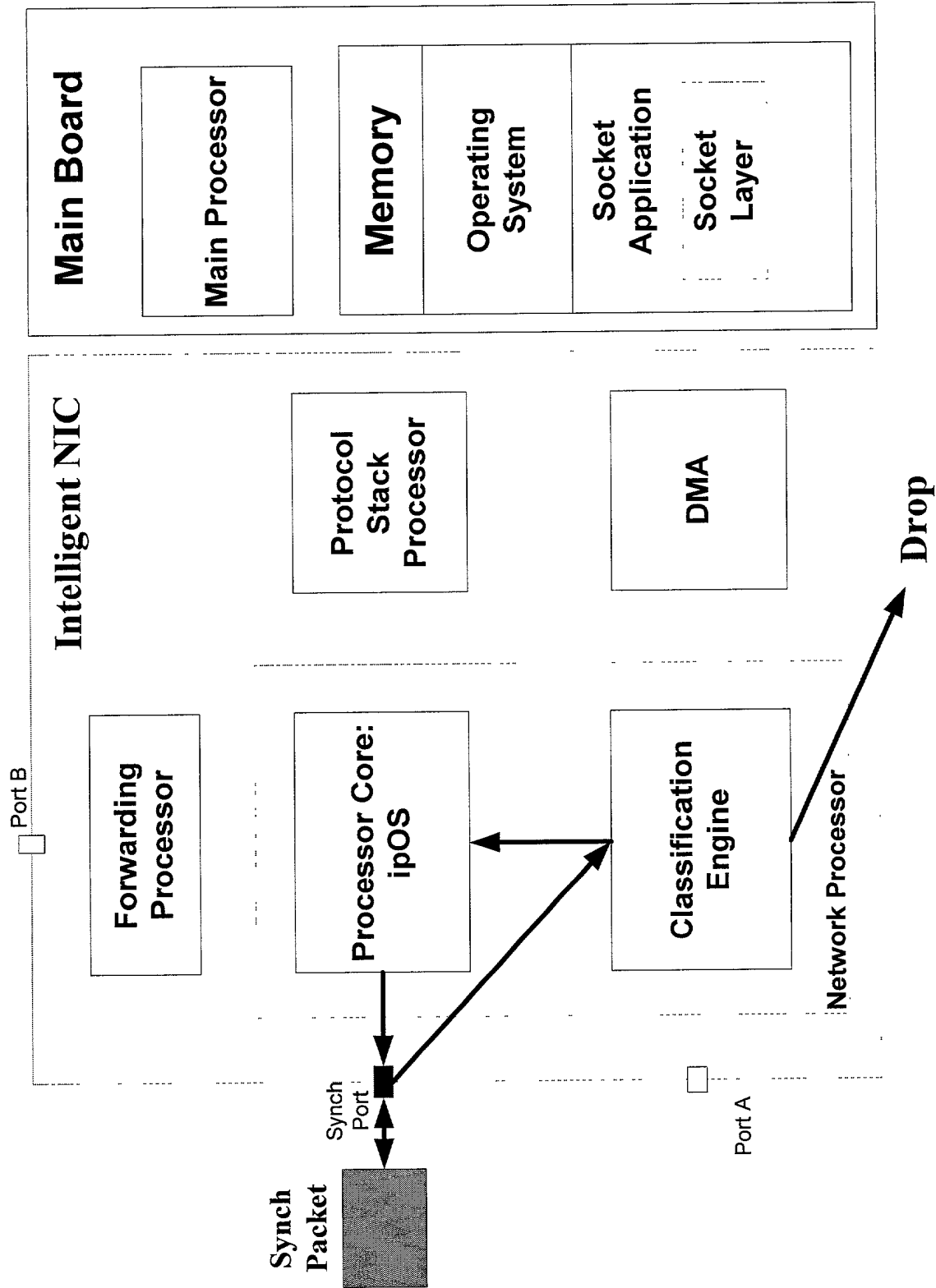


FIG. 5C

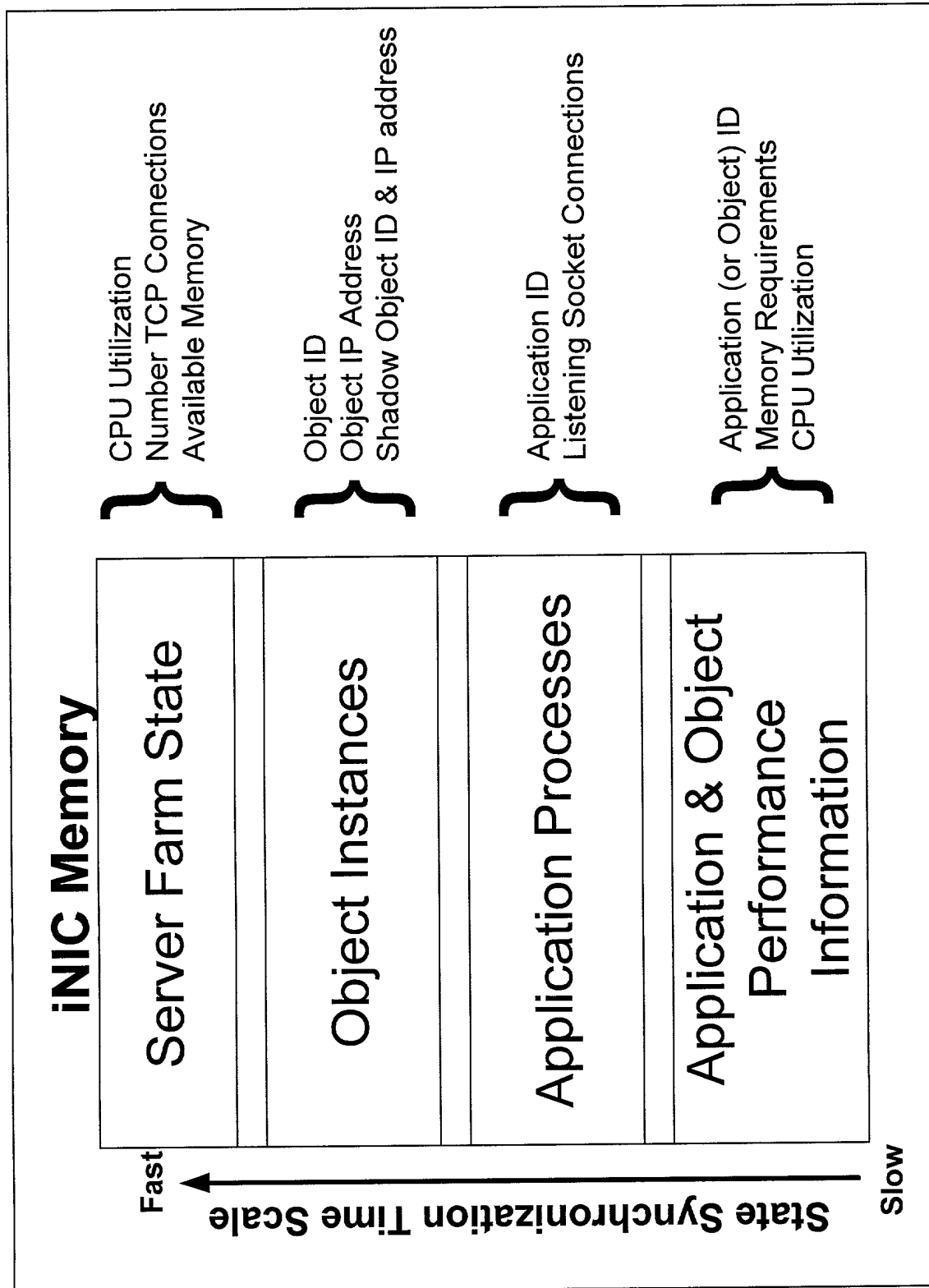


FIG. 6

Internet Connection Client Request to Server 1:  
123.123.123.1

Router

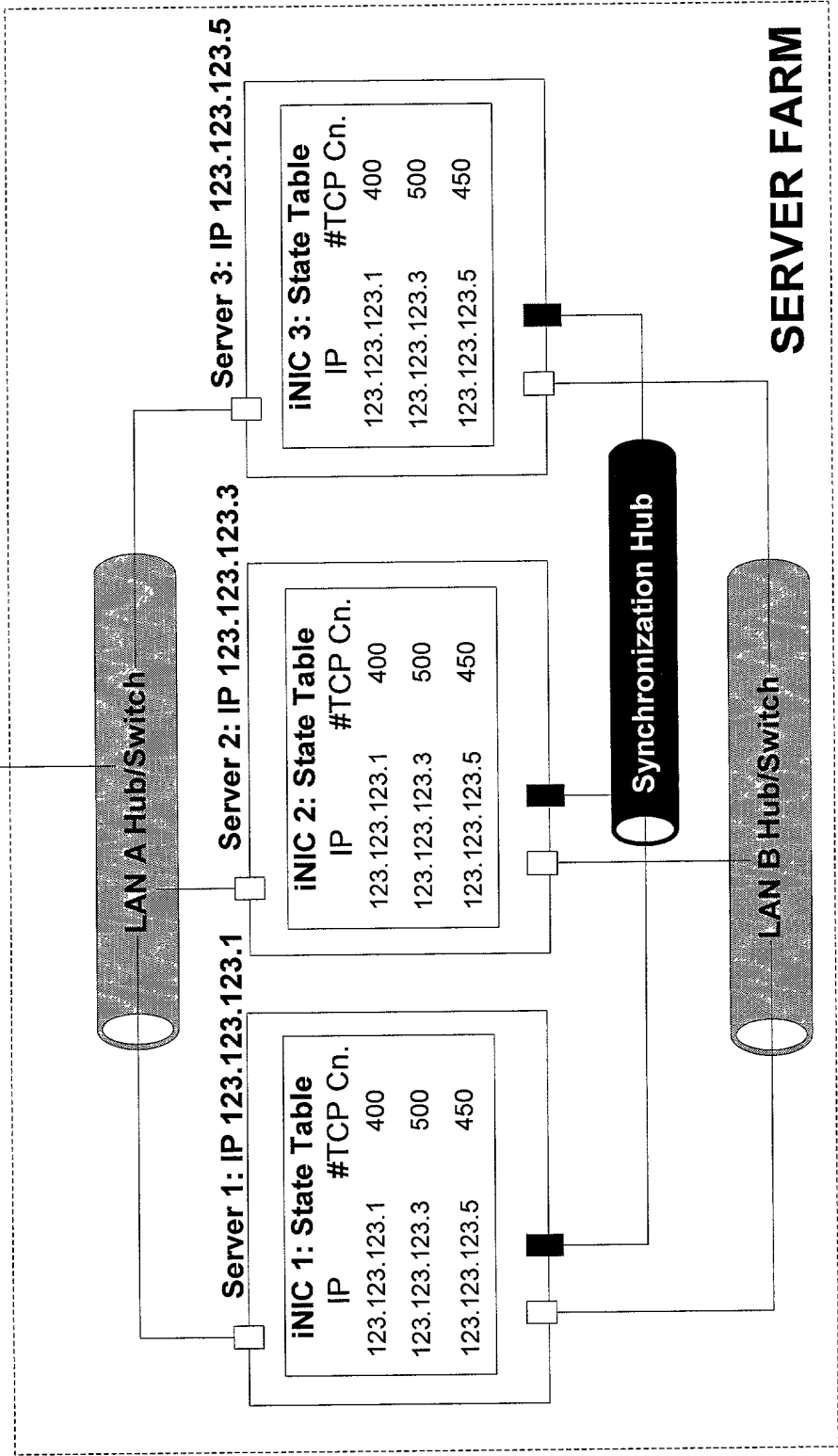


FIG. 7

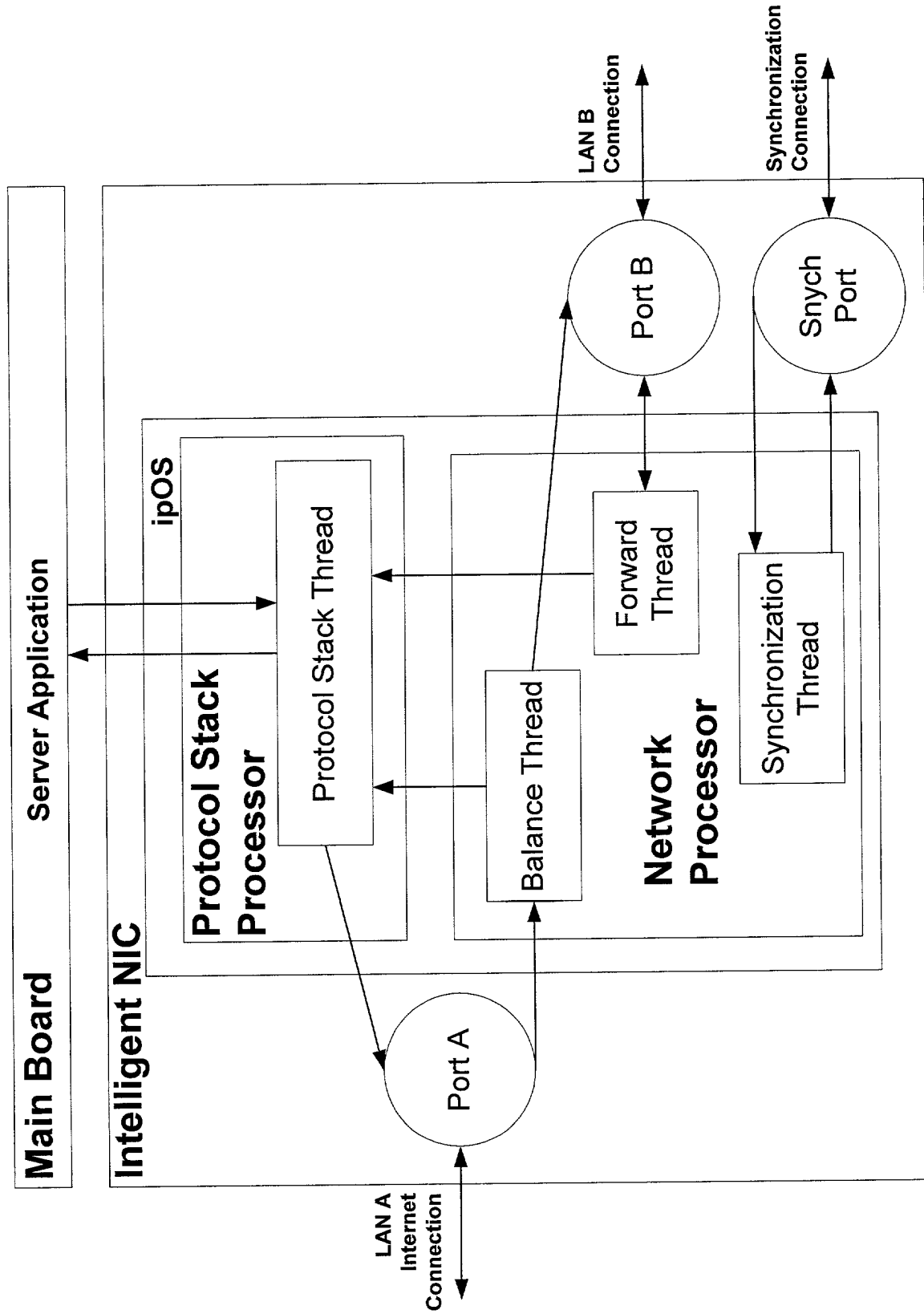


FIG. 8

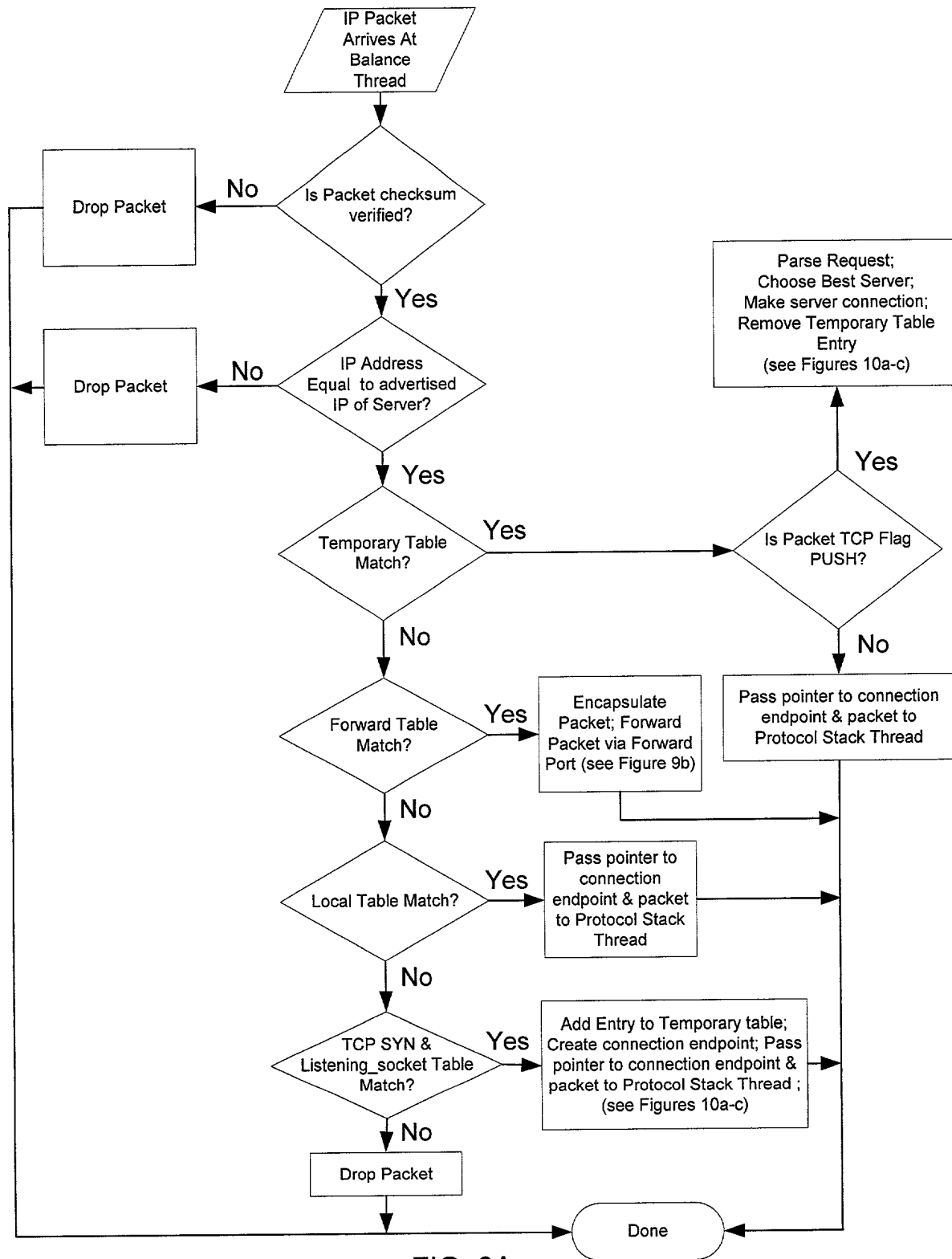


FIG. 9A



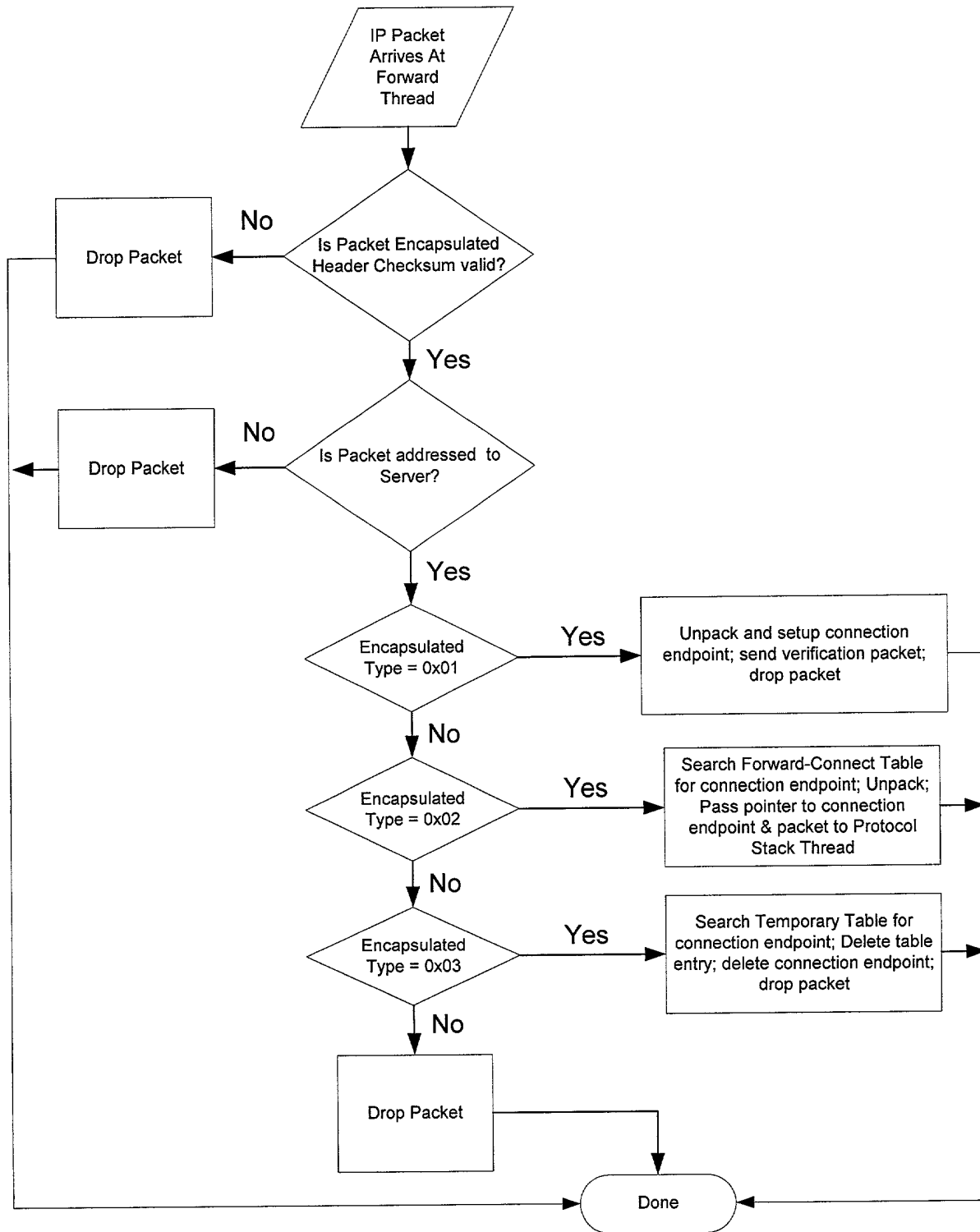


FIG. 9B

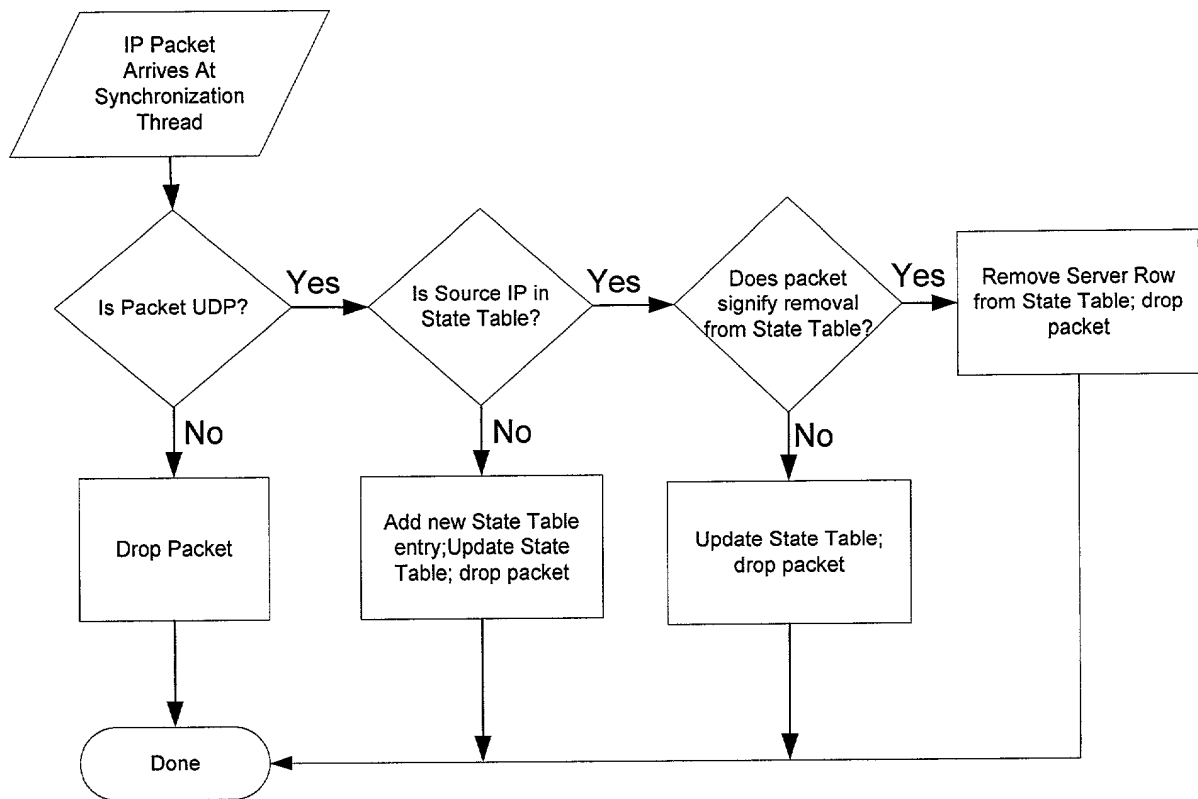
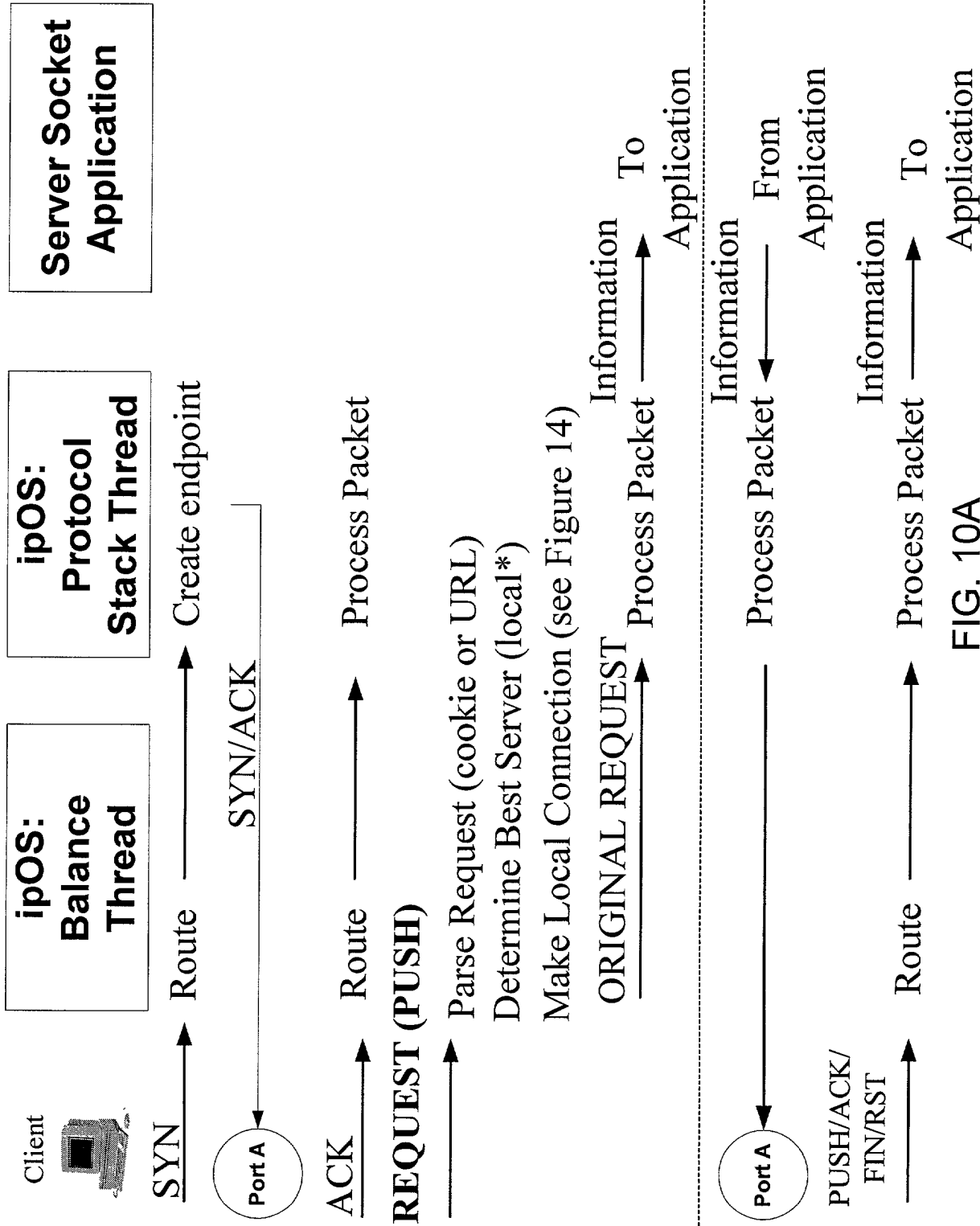


FIG. 9C



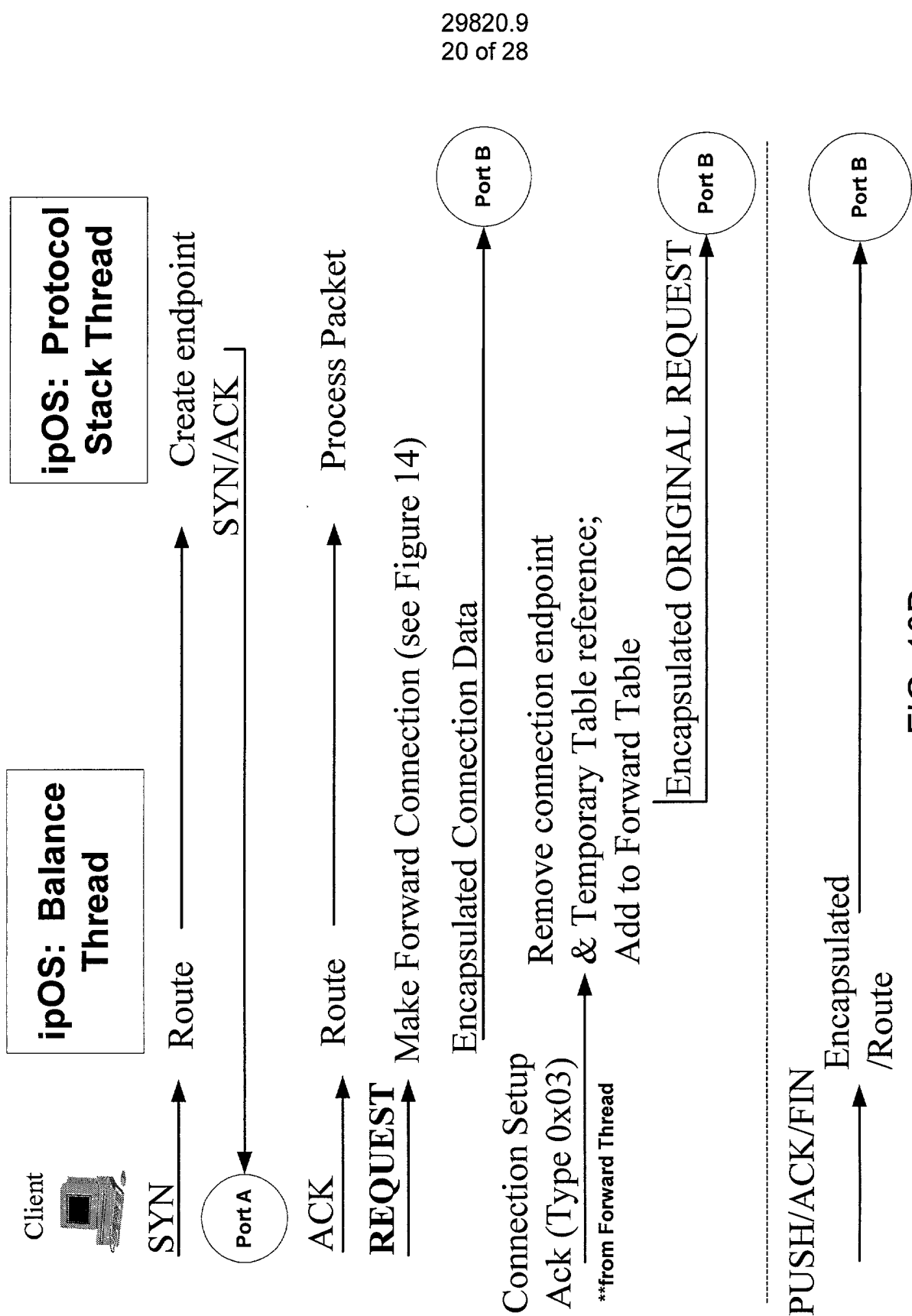


FIG. 10B

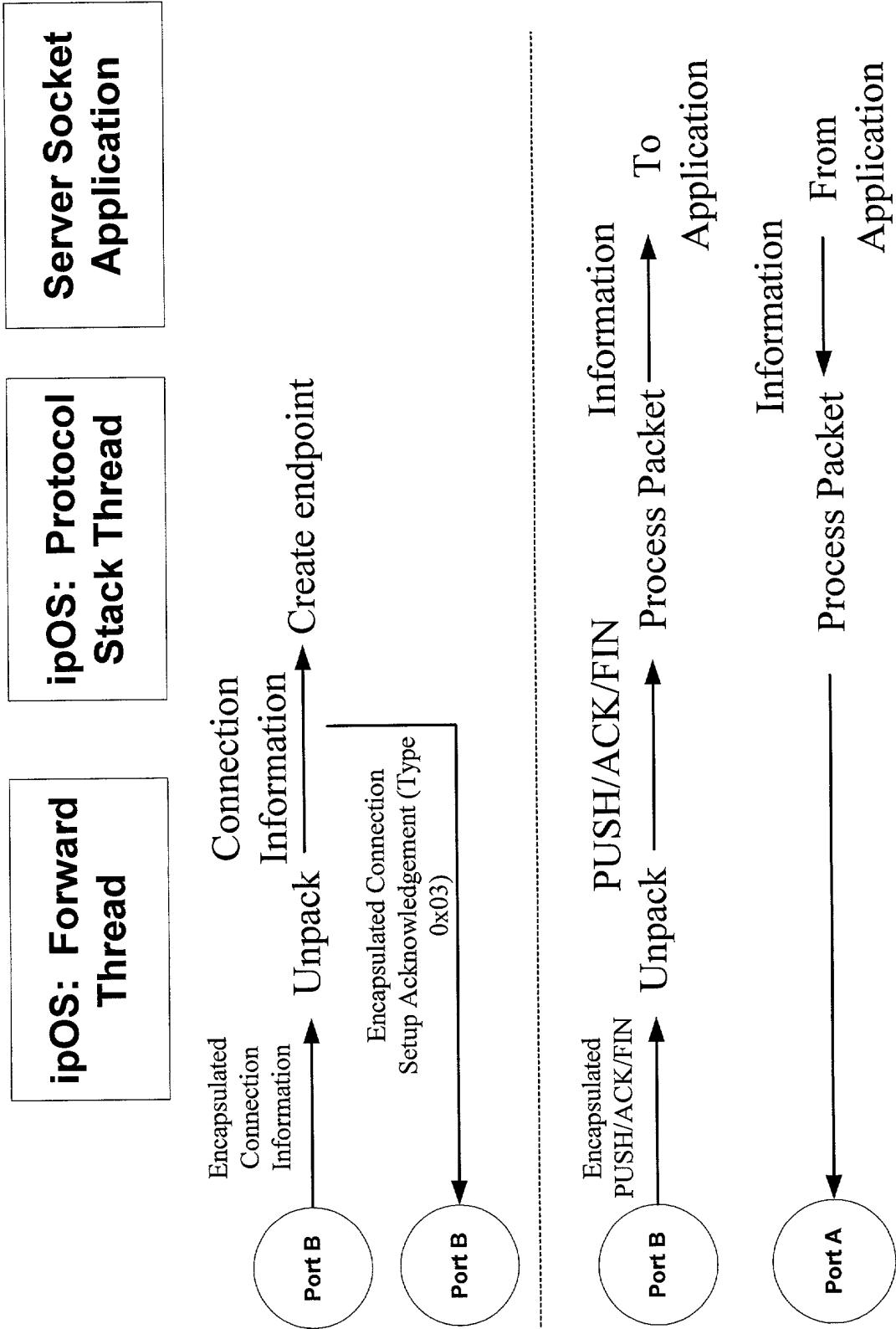


FIG. 10C

### Ethernet Encapsulation Header

MAC Destination Address	MAC Source Address	Type 0x007
6	6	2

FIG. 11A  
(Prior Art)

### ipOS Encapsulation Header

Source IP	Source Port	Dest. IP	Dest. Port	Type	Protocol	Checksum
4	2	4	2	1	1	2

FIG. 11B

### ipOS Connection Information (UDP)

Server IP	Server Port
4	2

FIG. 11C

### ipOS Connection Information (TCP)

Server IP	Server Port	TCP Control Block Information
4	2	140

FIG. 11D

### ipOS TCP Connection Packet (Type=0x01; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	TCP ipOS Connection Information
14	16	146

FIG. 11E

### ipOS UDP Connection Packet (Type=0x01; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	UDP ipOS Connection Information
14	16	6

FIG. 11F

### ipOS TCP Packet (Type=0x02; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/TCP Packet
14	16	40 + Data

FIG. 11G

### ipOS UDP Packet (Type=0x02; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/UDP Packet
14	16	28 + Data

FIG. 11H

### ipOS Endpoint Migration Acknowledgement Packet (Type=0x03)

Ethernet Encap. Type =0x007	ipOS Encap. Header
14	16

FIG. 11I

### Forward Table

Key	Field	Description
Yes	Source IP Address	IP address of Client
Yes	Source TCP Port	TCP Port of Client
No	Destination IP Address	IP Address to Forward
No	Destination TCP Port	TCP Port to Forward

### Local/Forward-Connect/Temporary Table

KEY	Field	Description
Yes	Source IP Address	Client IP address
Yes	Source Port	Client TCP Port
Yes	Destination IP Address	Endpoint IP Address
Yes	Destination Port	Endpoint TCP Port
No	Endpoint Reference	Reference to Connection Endpoint

### Server State Table

Key	Field	Description
Yes	Server IP Address	Server
No	Number TCP Connections	TCP Established Connections
No	CPU utilization	Main board CPU utilization
No	Available memory	Unused memory on Main Board
No	Available Bandwidth	Unused Bandwidth Capacity

### Listening Sockets Table

Key	Field	Description
Yes	Server IP Address	Server
Yes	TCP Port	Advertised TCP Port
No	Process	Application process advertising IP/Port

### Application Information Table

Key	Field	Description
Yes	Process ID	Application identification
No	Process memory requirements	Memory required to run application
No	Process CPU Utilization	Measure of application CPU utilization

### URL Map Table

Key	Field	Description
Yes	URL	Universal Resource Locator
Yes	Server IP Address	IP address of associated server

### Cookie Map Table

Key	Field	Description
Yes	Cookie ID	Cookie Identification tag
No	Server IP Address	IP address of associated server

FIG. 12

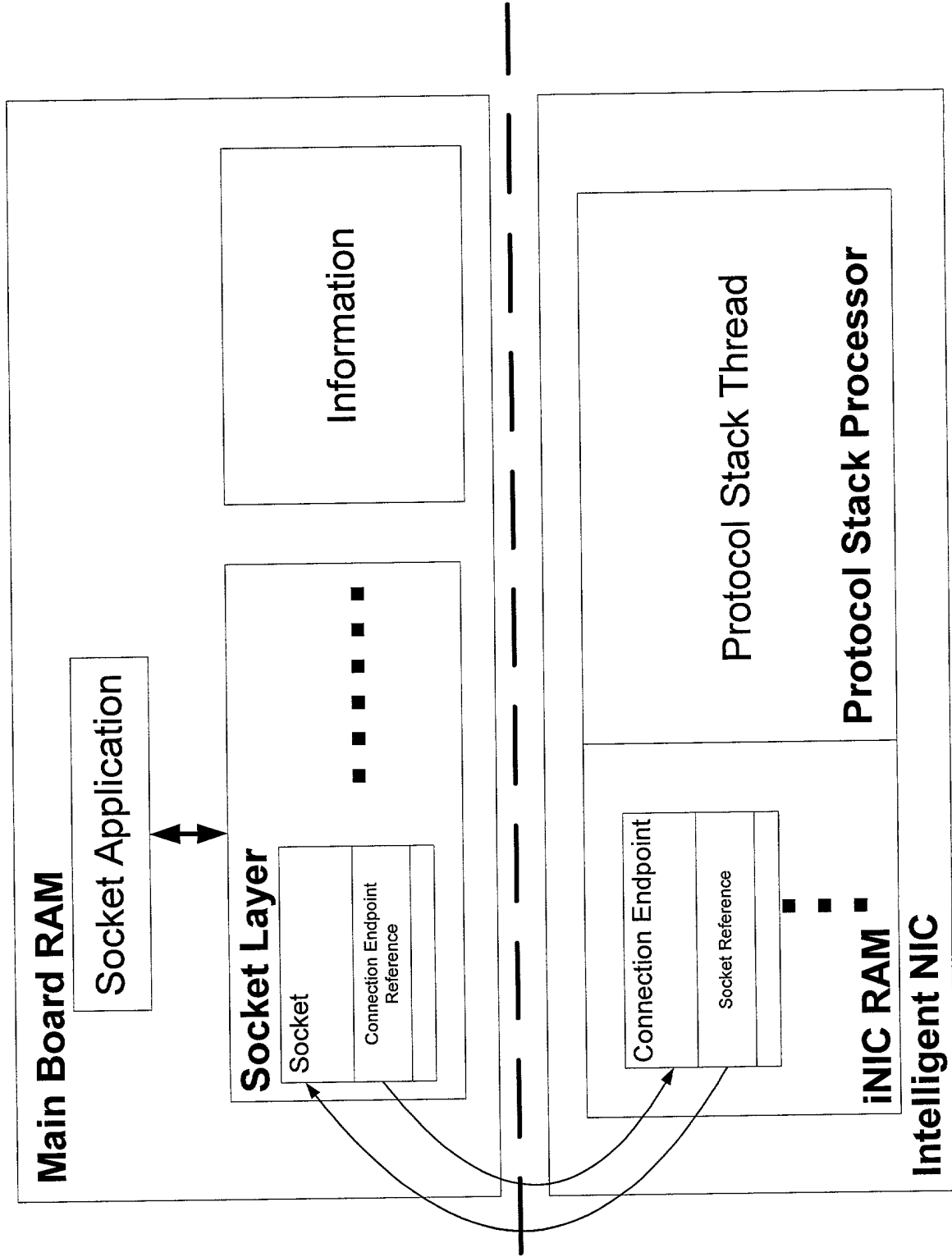


FIG. 13



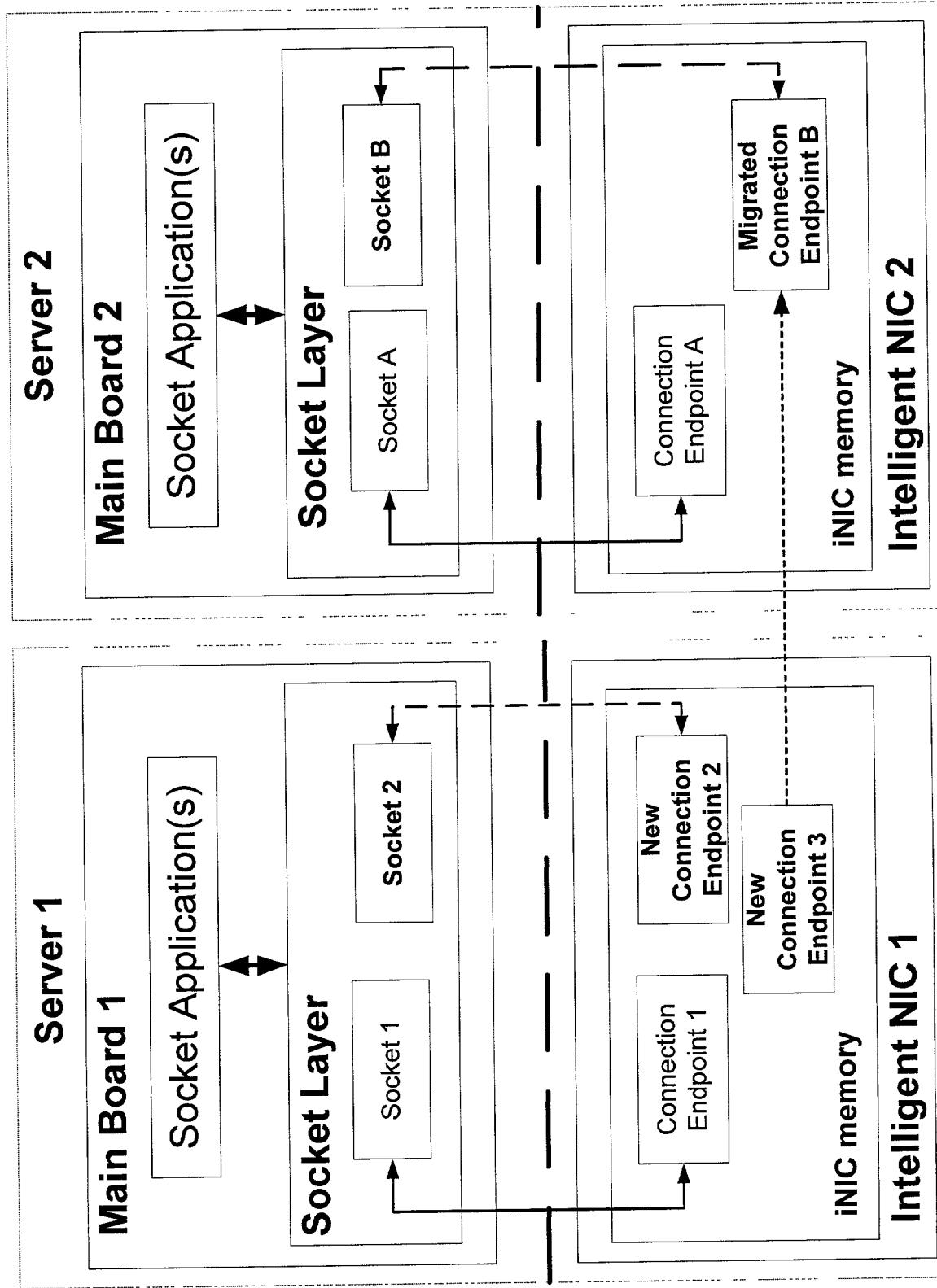


FIG. 14

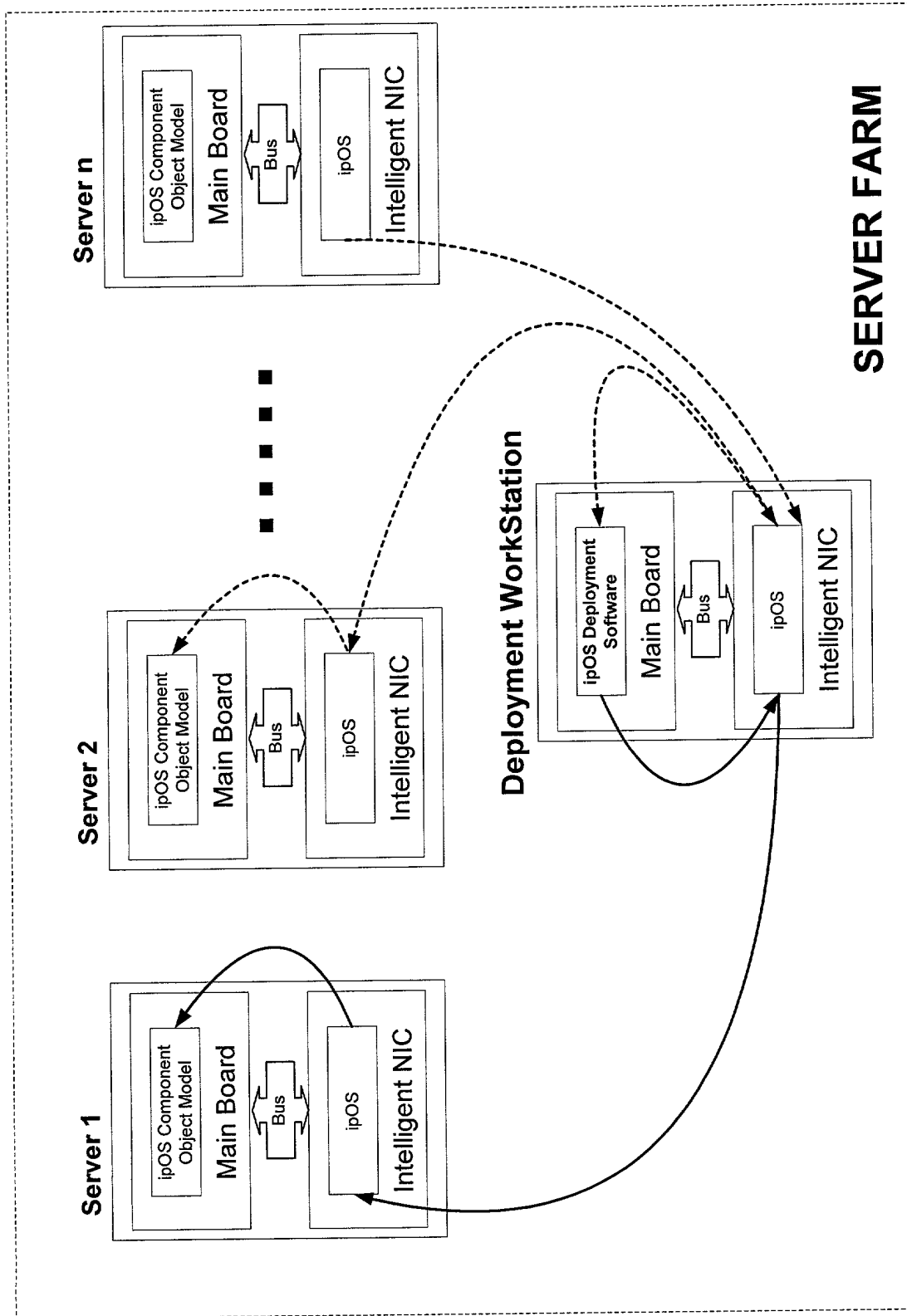


FIG. 15

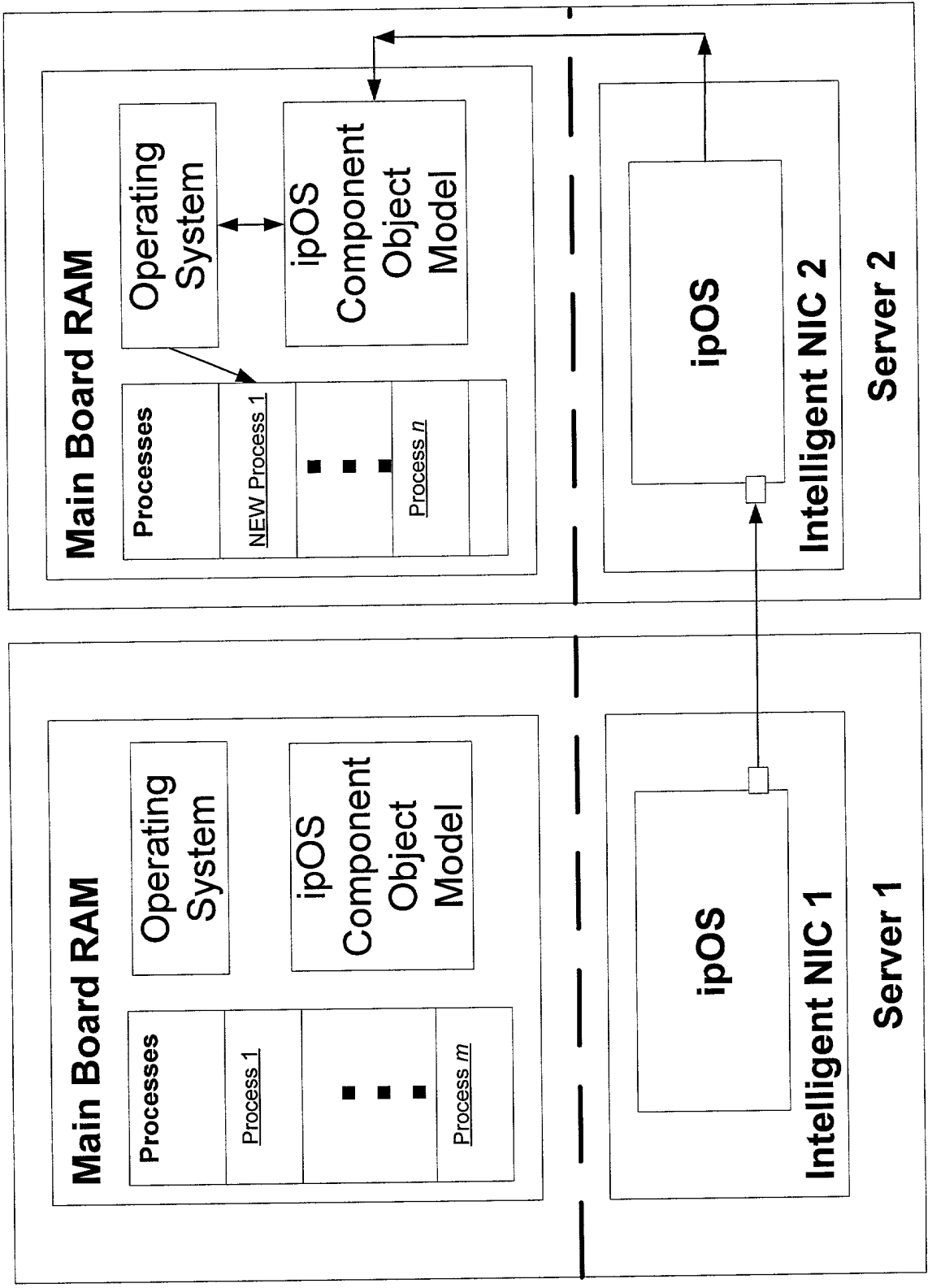


FIG. 16

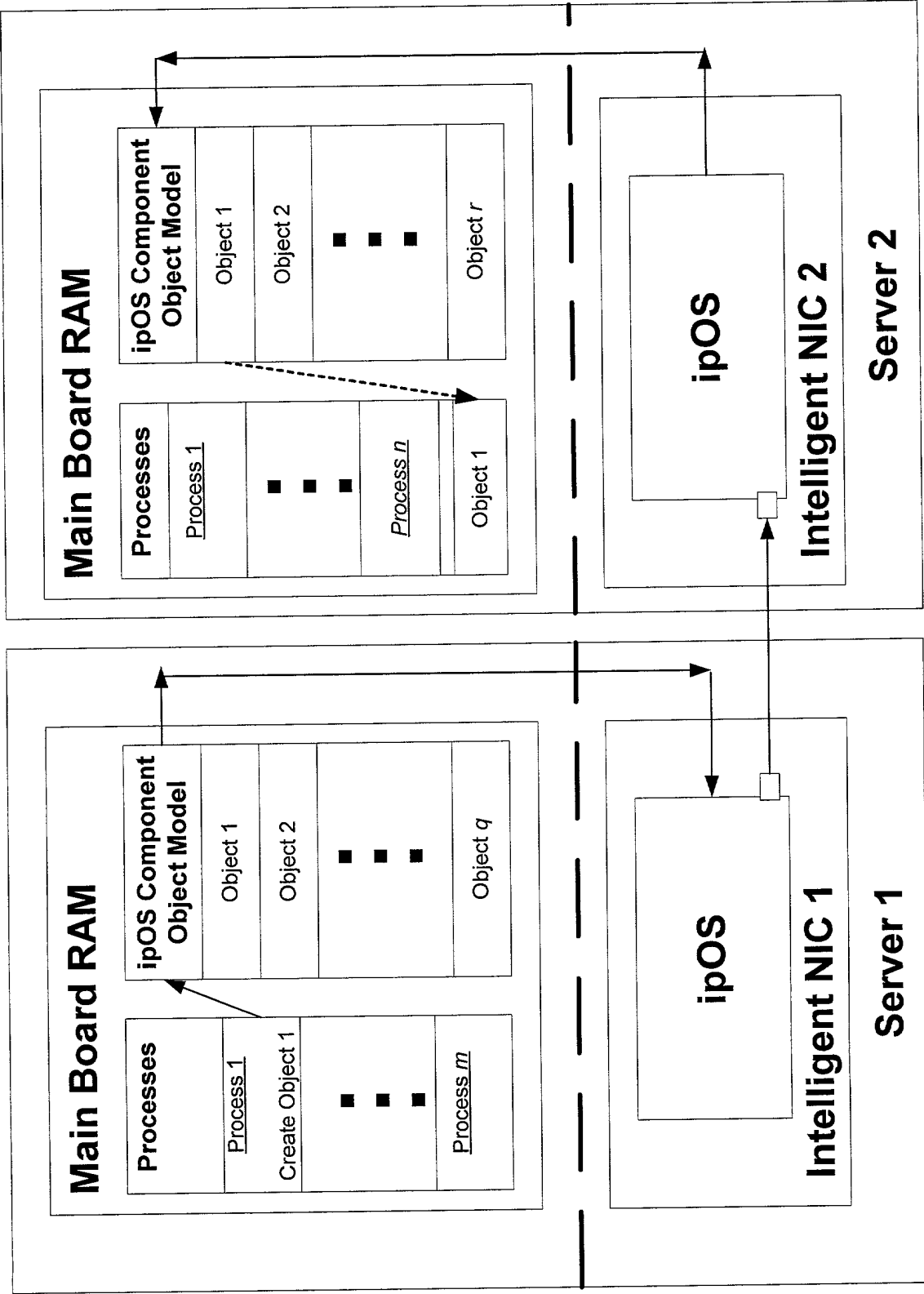


FIG. 17